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ABSTRACT

Many students in standard college preparatory programs are not reaching their potential levels of achievement. The purpose of this study is to determine the need for and possible content of a course for improving the academic performance of these students. The study was conducted in the spring of 1986 at Marshfield High School, Massachusetts. Information about student study habits, skills, and attitudes was gathered from surveys completed by 110 students (50 freshmen, 30 sophomores, and 30 juniors), their parents or guardians, and 48 school staff members. Results show that the time students spend on homework is only 40.8 percent of what their teachers feel is assigned; that a large majority of students (81.9 percent) and parents (95.5 percent) want study habits and skills improved; and that a course in study and time management skills is wanted by 56.9 percent of the students and 81.5 percent of the parents. The study indicates that to improve student achievement, not only must study habits and skills be addressed, but also responsibility, academic motivation, and student-teacher relations. The study report includes the surveys and data tables of results. (Author/JD)

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The Need for and Possible Content of a Course to Help Underachieving College Preparatory High School Students

Michael O. Schwartz

Marshfield High School, Marshfield, Massachusetts

I would like to thank those students, parents and educators who took the time to complete a survey questionnaire. I would especially like to thank those teachers who helped with the distribution and collection of the questionnaires.

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ABSTRACT

There are many students in standard college preparatory programs who are not reaching their potential levels of achievement. The purpose of this study is to determine the need for and possible content of a course for improving the academic performance of these students. The study was conducted in the Spring of 1986 at Marshfield High School, a four-year, comprehensive school with a student body of approximately 1500. The school is in Marshfield, Massachusetts, a residential community approximately 30 miles south of Boston. Information about student study habits, skills, and attitudes was gathered from surveys completed by 110 students (50 freshmen, 30 sophomores, and 30 juniors), their parents or guardians, and 48 school staff members. Results show that the time students spend on homework is only 40.8% of what their teachers feel is assigned; that a large majority of students (81.9%) and parents (95.5%) want study habits and skills improved; and that a course in study and time management skills is wanted by 56.9% of the students and 81.5% of the parents. The study indicates that to improve student achievement, not only must study habits and skills be addressed, but also responsibility, academic motivation, and student-teacher relations. The study report includes the surveys and data tables of their results.

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There are many high school students in standard college preparatory programs who are not reaching their potential levels of achievement. The purpose of this study is to determine the need for and possible content of a course for improving the academic performance of these students.

The study is a result of concern over conditions observed in the classroom--assignments not done, careless work, lack of attention and interest, and a decrease in subject material covered. In a study of new Miami-Dade Community College students, Losak, Morris, & Schwartz (1982) pointed out the decline in the academic quality of entering students. In their study of high school achievement, Coleman, Hoffer, & Kilgore (1982) found that in schools where academic demands were higher, achievement in math and verbal skills was also higher.

Related concerns are the decline in SAT scores, a decrease by many colleges in the academic achievement required of entering students, and a corresponding increase in remedial college courses. In a paper on declining SAT scores, Jencks (1978) found that the decreases in scores were not completely due to changes in the composition of the population taking the test, but were also related to students doing less reading, and a decreasing ability of students to handle complex ideas. Brown (1984) points out that in four-year public colleges 25%, and in two-year, 42%, of the math courses are remedial. In the Losak et al. (1982) study, only 49.9 % of those surveyed felt they studied "a lot" in high school, and 50.3 % said they had not learned how to study.

Many felt not enough was demanded of them, and that study habits should have been emphasized.

A course which will improve student achievement must deal with academic motivation and responsibility as well as study habits and skills. An outgrowth should be improved self-respect and its resulting improved confidence and outlook on school and other matters of concern to the student. Christen & Brown (1982) cite a study skills project at Coronado High School in Scottsdale, Arizona which decreased student frustration and improved attendance. Miller, Wallace, & Stillwagon (1969) reported on a pre-college preparatory study skills program which included counseling sessions four days a week. The subject group, with a predicted grade point average (GPA) of 1.5, achieved a GPA of 2.0 in the semester following the program.

METHOD

Subjects

This study was conducted at Marshfield High School, a four-year, comprehensive school with a student body of approximately 1500 and a professional staff of 97. Seventy-six percent of the class of 1986 went onto further education, 62% going to four-year colleges. The school is in Marshfield, Massachusetts, a residential community with a population of approximately 22,000, and located on the coast approximately 30 miles south of Boston. The school has four levels of course work: level 0, advanced and honors; level 1, accelerated college

preparatory; level 2, standard college preparatory; and level 3, basic education. The study focuses on 110 students (50 freshmen, 30 sophomores, and 30 juniors), each having no more than one course which is not level 2; their parents or guardians; and 48 school staff members. Based on math class enrollments and the assumption that college preparatory students take math, the student sample represents 18.5 % of the level 2 students in the school.

Procedures

Information about student study habits, skills, and attitudes was gathered during the fourth term of the 1985-1986 school year. Three surveys were used: a student survey, a parent survey, and a school staff survey. To increase the chances of obtaining reliable data, parents and students were asked for anonymous responses, and their surveys given matching identification numbers. The surveys were distributed in the students' math classes, the student surveys completed in class, and the parent surveys taken home and later returned by the students.

Of 300 pairs of student and parent surveys distributed, 291 (97%) of the student, and 187 (62.3 %) of the parent surveys were returned. Of the 187 matched returns, 130 met the condition that each student not have more than one non-level two course. The 110 survey pairs used in the study were randomly selected by group to obtain the representation of 50 freshmen, 30 sophomores, and 30 juniors in the sample.

School Staff Survey and Instructions (reduced size)

Dear Colleague:

My apologies for asking at such a busy time of the year, but may I enlist your assistance with a survey project on student study habits and skills? I have given questionnaires dealing with this subject to level 2 students and their parents. Since a picture of this topic would not be complete without your input, I would appreciate it if you would complete the relevant parts of the survey below and return it to me, or place it in my mailbox.

Thank-you for your help.

Michael Schwartz

Name_____ Position_____

Level 2 subjects you are now teaching:
1._____ 2._____ 3._____

Please estimate the average number of hours of homework you give per week in each of the above courses:
1._____ 2._____ 3._____

What is the total number of your level 2 students?_____

1. Please estimate the average number of students you see each day unprepared for class because of the following reasons:
   a. not having either books, notebook, or pen or pencil. _____
   b. not having completed reading assignments. _____
   c. not having completed written assignments. _____

2. Approximately how many of your level 2 students would you say do not prepare properly for tests and quizzes? _____

3. Approximately how many of your level 2 students do you feel could be doing better work? _____

4. Rate from 1 to 4, 1 being the most important, the following reasons why students do not work up to their abilities.
   ____ lack of study skills and habits.
   ____ lack of academic motivation.
   ____ lack of responsibility.
   ____ problems with interpersonal relations.

5. Do you feel a course in study and time management skills is needed? _____

6. If your answer to question 5 is yes, should the course be taught as (1) part of existing courses or as (2) a separate course? _____

7. Would you like to see such a course emphasize one or more of the following (please circle)? Please make any additions you feel necessary.
   Effective use of time; Note-taking; Reading and use of books; Library skills; Communication skills; How to study for a test; How to take tests; Motivation; Responsibility.

Any comments or suggestions would be appreciated. Thanks again.

Student Survey and Instructions (reduced size)

Dear Student,

The purpose of this survey is to help determine the need for a course which would help students such as yourself improve their study habits and skills. All responses are anonymous. Each questionnaire is identified only by its number.

Please answer the questions on the other side of this paper by placing an X in the appropriate blanks. Also, please fill in the appropriate information about your present courses.

Thank-you for your help.

No._____

		ALWAYS	USUALLY	SOMETIMES	NEVER
1.	Do you pay attention in class?	____	____	____	____
2.	Do you follow directions?	____	____	____	____
3.	Do you bring your books to class?	____	____	____	____
4.	Do you bring a notebook to class?	____	____	____	____
5.	Do you bring a pencil or pen to class?	____	____	____	____
6.	Do you take notes in class?	____	____	____	____
7.	Do you do your written assignments?	____	____	____	____
8.	Do you do your reading assignments?	____	____	____	____
9.	Do you use your notes when studying?	____	____	____	____
10.	Do you read material and examples in your books to help with written assignments?	____	____	____	____
11.	Do you study enough for tests and quizzes?	____	____	____	____
12.	Do you use the library when an assignment calls for it?	____	____	____	____
13.	Do you ask questions in class when you do not understand something?	____	____	____	____
14.	Do you seek extra help when needed?	____	____	____	____
15.	Do you make up your work when absent?	____	____	____	____
16.	Do you set aside time each day for doing your homework?	____	____	____	____
17.	Does anyone at home ask about your daily work in school?	____	____	____	____

		YES	NO
18.	Is doing a good job on your schoolwork important to you?	___	___
19.	Do you feel your work in school will help you after you graduate?	___	___
20.	Do you have a quiet place at home to study?	___	___
21.	Would you study more if your friends did?	___	___
22.	Are you comfortable asking questions in class?	___	___
23.	Are you comfortable seeing your teachers for help?	___	___
24.	Do you use your time well?	___	___
25.	Do you feel you could do better in your schoolwork?	___	___
26.	Would you like to learn how to improve your study skills?	___	___
27.	If it were offered, would you sign up for a 6 to 9 week course in study and time management skills?	___	___

Please complete the following: Year You Will Graduate _____

Course	Level	Grade Last Quarter
_____	____	____
_____	____	____
_____	____	____
_____	____	____
_____	____	____
_____	____	____

Please estimate the average number of hours per week you spend on homework.

_____

Parent Survey and Instructions (reduced size)

Dear Parent or Guardian,

The purpose of this survey is to help determine the need for a course which would help students improve their study habits and skills.

All responses are anonymous. Each questionnaire is identified only by its number.

Please answer the questions on the other side of this paper by placing an X in the appropriate blanks, and have your son or daughter return the survey to his or her teacher.

Thank-you for your cooperation.

No._____

		ALWAYS	USUALLY	SOMETIMES	NEVER
1.	Do you ask your son or daughter about his or her daily progress and work in school?	_____	_____	_____	_____
2.	Do you check to see that your son or daughter does his or her homework?	_____	_____	_____	_____
3.	Does your son or daughter make up his or her work when absent?	_____	_____	_____	_____
4.	Is your son or daughter prepared for class each day with books, notebooks, pencil, and pen?	_____	_____	_____	_____
5.	Does your son or daughter seek extra help when needed?	_____	_____	_____	_____
6.	Does your son or daughter use his or her time well?	_____	_____	_____	_____
7.	Do you feel your son or daughter studies enough for tests and quizzes?	_____	_____	_____	_____

		YES	NO
8.	Do you feel that obtaining missed assignments and seeing that make-up work is completed is the student's responsibility?	___	___
9.	Do you feel your son or daughter could be doing better in his or her schoolwork?	___	___
10.	Would you like to have your son or daughter improve his or her study skills?	___	___
11.	If it were offered, would you have your son or daughter sign up for a 6 to 9 week course in study and time management skills?	___	___

Please estimate the average number of hours per week your son or daughter spends doing homework.

_____

RESULTS

School Staff Survey

Three and one-half hours (s.d.=1.4) was the average number of weekly homework hours assigned per course.

Of the 48 (49.5%) surveys returned, there were 46 from teachers, including five from department heads, and one each from guidance personnel and administrators.

The results in Table 1 were obtained from the responses to the first, of those numbered one through seven, inquiry (Please estimate the average number of students you see each day unprepared for class because of the following reasons:).

TABLE 1

Staff Survey:
Reasons Why and Average Percentages of Students Unprepared for Class Each Day

Reason	Average Percentage
a. not having either books, notebook, or pen or pencil.	12.0
b. not having completed reading assignments.	33.4
c. not having completed written assignments.	26.3

As calculated from the responses to inquiry 2 (Approximately how many of your level 2 students would you say do not prepare properly for tests and quizzes?), the average percentage of students not preparing properly is 47.0.

As calculated from the responses to inquiry 3 (Approximately how many of your level 2 students do you feel could be doing better work?), the average percentage of students who could do better is 60.6.

The percentages in Table 2 were obtained from the responses to inquiry 4 (Rate from 1 to 4, 1 being the most important, the following reasons why students do not work up to their abilities.).

TABLE 2

Staff Survey:
Reasons Why Students Do Not Work to Their Abilities

	Rating			
	1	2	3	4
Reason	(48) 100%	(48) 100%	(48) 100%	(48) 100%
lack of study skills and habits.	37.8	27.1	27.1	4.2
lack of academic motivation.	43.8	20.8	31.3	4.2
lack of responsibility.	22.9	45.8	25.0	2.1
problems with interpersonal relations.	0.0	2.1	8.3	85.4

Note. Percentages may not total 100 because of non-responses or the same rating having been given to more than one choice.

In response to inquiry 5 (Do you feel a course in study and time management skills is needed?) 46 (95.8%) of the respondents indicated that such a course was needed.

In response to inquiry six (If your answer to question 5 is yes, should the course be taught as (1) part of existing courses

or as (2) a separate course?), 23.9% indicated 1, 71.7% indicated 2, and 4.4% indicated no preference.

The results in Table 3 were obtained from the responses to inquiry 7 (Would you like to see such a course emphasize one or more of the following (please circle)? Please make any additions you feel necessary.).

TABLE 3

Staff Survey:
Topics to be Covered in a Study Skills Course

Choice	Percentage Making this Choice
Effective use of time	66.6
Note-taking	68.8
Reading and use of books	59.8
Library skills	39.6
Communication skills	31.3
How to study for a test	70.8
How to take tests	70.8
Motivation	68.8
Responsibility	75.0
Additions:	
Reasoning skills	2.1

Staff Comments:

"Freshmen desperately need positive reinforcement in all these areas--especially our level two students"

"As a guidance counselor the question of study habits and skills is constantly being discussed with parents--regardless of the student's level of expertise. Level two students need it probably more than in other levels."

"The most important problem I encounter in teaching chemistry to this level is their lack of motivation. This group of students has a low level of self-esteem."

"Many level twos refuse to take notes; they expect that a study sheet be provided for every lecture and for any board work."

"I feel a course in study helps should be mandatory for all freshmen."

"I think emphasis on study skills should be part of all courses. Consistency of teacher expectations within the faculty would help also."

"I feel that the most important course in grade nine should be how to do high school and do it well.

"I have concerns about level twos availin themselves of it."

"The course should be in lower grades. They could teach it to every student."

"At high school it should be an enrichment course for level two and incorporated in English classes in level three."

Student Survey

TABLE 4

Student Survey Questions 1-27:
Percentages of Responses

Question	Response	All (110) 100%	Freshmen (50) 100%	Sophomores (30) 100%	Juniors (30) 100%
1. Do you pay attention in class?	Always	11.0	8.0	20.0	6.7
	Usually	78.9	86.0	73.3	70.0
	Sometimes	10.1	4.0	6.7	23.3
	Never	0.0	0.0	0.0	0.0
2. Do you follow directions?	Always	31.2	26.0	40.0	30.0
	Usually	64.3	74.0	53.3	56.6
	Sometimes	4.5	0.0	6.7	10.0
	Never	0.0	0.0	0.0	0.0
3. Do you bring your books to class?	Always	84.5	80.0	93.3	83.3
	Usually	12.8	16.0	6.7	13.4
	Sometimes	2.7	4.0	0.0	3.3
	Never	0.0	0.0	0.0	0.0
4. Do you bring a notebook to class?	Always	72.7	70.0	80.0	70.0
	Usually	20.9	22.0	16.7	23.3
	Sometimes	6.4	8.0	3.3	6.7
	Never	0.0	0.0	0.0	0.0
5. Do you bring a pencil or pen to class?	Always	72.7	70.0	86.7	63.3
	Usually	23.7	28.0	10.0	30.0
	Sometimes	2.7	0.0	3.3	6.7
	Never	0.9	2.0	0.0	0.0
6. Do you take notes in class?	Always	20.0	14.0	23.3	26.7
	Usually	53.6	52.0	56.7	53.3
	Sometimes	25.5	34.0	20.0	16.7
	Never	0.9	0.0	0.0	3.3
7. Do you do your written assignments?	Always	27.3	24.0	30.0	30.0
	Usually	59.0	70.0	50.0	50.0
	Sometimes	13.7	6.0	20.0	20.0
	Never	0.0	0.0	0.0	0.0
8. Do you do do your reading assignments?	Always	15.4	20.0	20.0	3.3
	Usually	40.9	44.0	40.0	36.7
	Sometimes	33.7	30.0	30.0	43.3
	Never	10.0	6.0	10.0	16.7
9. Do you use your notes when studying?	Always	32.1	32.0	33.3	30.0
	Usually	34.8	28.0	40.0	40.0
	Sometimes	27.6	36.0	20.0	20.0
	Never	5.5	2.0	2.0	10.0
10. Do you read material and examples in your books to help with your homework?	Always	23.6	22.0	23.3	26.6
	Usually	44.6	50.0	43.4	36.7
	Sometimes	25.5	22.0	30.0	26.7
	Never	6.3	6.0	3.3	10.0
11. Do you study enough for tests and quizzes?	Always	9.0	10.0	6.7	10.0
	Usually	42.7	46.0	40.0	40.0
	Sometimes	41.9	36.0	46.7	46.7
	Never	6.4	8.0	6.7	3.3

Note. Percentages may not total 100 because of non-responses.

TABLE 4 (continued)

Student Survey Questions 1-27:
Percentages of Responses

Question	Response	All (110) 100%	Freshmen (50) 100%	Sophomores (30) 100%	Juniors (30) 100%
12. Do you use the library when an assignment calls for it?	Always	30.0	40.0	16.6	26.6
	Usually	34.6	30.0	40.0	36.6
	Sometimes	25.4	28.0	26.6	20.0
	Never	10.0	2.0	16.6	16.6
13. Do you ask questions in class when you do not understand something?	Always	22.0	26.0	23.3	13.3
	Usually	37.7	46.0	20.0	40.0
	Sometimes	33.9	22.0	28.6	40.0
	Never	6.4	4.0	10.0	6.7
14. Do you seek extra help when needed?	Always	11.8	18.0	10.0	3.3
	Usually	27.3	30.0	20.0	30.0
	Sometimes	48.2	48.0	46.7	50.0
	Never	12.7	4.0	23.3	16.7
15. Do you make up your work when absent?	Always	45.4	52.0	43.3	36.7
	Usually	44.6	42.0	40.0	53.3
	Sometimes	9.1	6.0	13.4	10.0
	Never	0.9	0.0	3.3	0.0
16. Do you set aside time each day for doing your homework?	Always	22.0	32.0	10.0	16.6
	Usually	45.0	40.0	60.0	36.7
	Sometimes	23.9	22.0	13.3	36.7
	Never	9.1	6.0	16.7	6.7
17. Does anyone at home ask about your daily work in school?	Always	33.7	38.0	23.3	36.6
	Usually	30.0	20.0	50.0	26.7
	Sometimes	27.3	32.0	20.0	26.7
	Never	9.0	10.0	6.7	10.0
18. Is doing a good job on your schoolwork important to you?	Yes	96.4	98.0	96.7	93.3
	No	3.6	2.0	3.3	6.7
19. Do you feel your work in school will help you after you graduate?	Yes	89.1	94.0	80.0	90.0
	No	10.9	6.0	20.0	10.0
20. Do you have a quiet place at home to study?	Yes	78.1	70.0	83.3	86.7
	No	21.9	30.0	16.7	13.3
21. Would you study more if your friends did?	Yes	26.7	24.0	23.3	33.3
	No	73.3	76.0	76.7	63.3
22. Are you comfortable asking questions in class?	Yes	62.3	62.0	53.3	70.0
	No	37.7	38.0	46.7	26.7

Note. Percentages may not total 100 because of non-responses.

TABLE 4 (continued)

Student Survey Questions 1-27:
Percentages of Responses

Question	Response	All (110) 100%	Freshmen (50) 100%	Sophomores (30) 100%	Juniors (30) 100%
23. Are you comfortable seeing your teachers for help?	Yes	74.5	76.0	73.3	73.3
	No	25.5	24.0	26.7	26.7
24. Do you use your time well?	Yes	67.2	80.0	63.3	50.0
	No	32.7	20.0	36.7	50.0
25. Do you feel you could do better in your schoolwork?	Yes	97.2	98.0	96.7	96.7
	No	2.8	2.0	3.3	3.3
26. Would you like to learn how to improve your study skills?	Yes	81.9	80.0	86.7	80.0
	No	18.1	20.0	13.3	20.0
27. If it were offered, would you sign up for a 6 to 9 week course in study and time management skills?	Yes	56.9	58.0	53.3	56.7
	No	43.1	42.0	46.7	40.0

Note. Percentages may not total 100 because of non-responses.

TABLE 5

Student Survey:
Means and Standard Deviations of Weekly Homework Hours (HWH) and Grade Point Averages (GPA): Maximum GPA=6.0

Class	Mean HWH (s.d.)	Mean GPA (s.d.)
All	6.5[a] (3.6)	4.3 (0.8)
Freshman	6.2 (4.2)	4.5 (0.8)
Sophomores	7.0 (2.9)	4.4 (0.8)
Juniors	6.6 (3.2)	4.2 (1.0)

[a]This is an average of 1.4 hours for each major course.

FIGURE 1

Frequency Distribution of Grade Point Averages for All Students

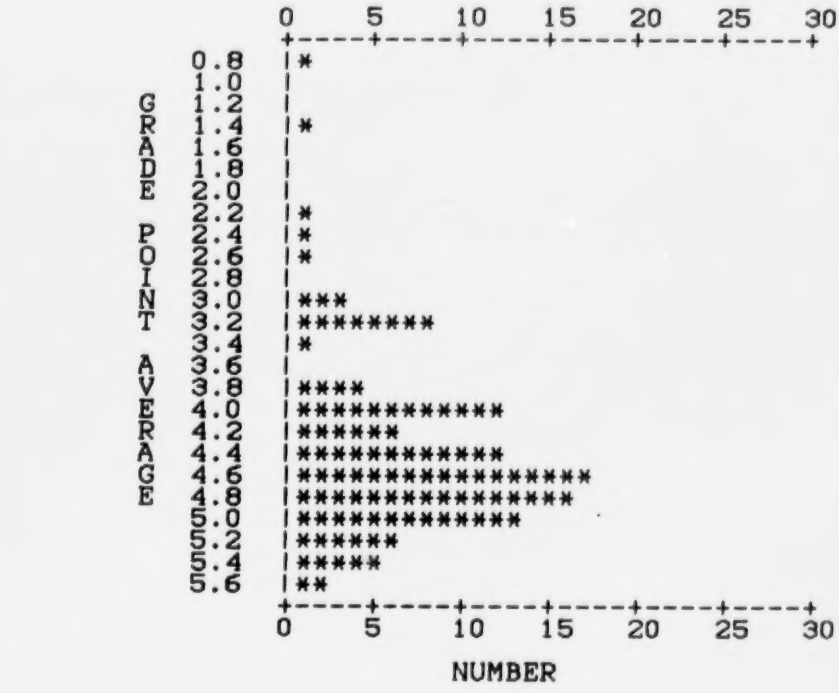
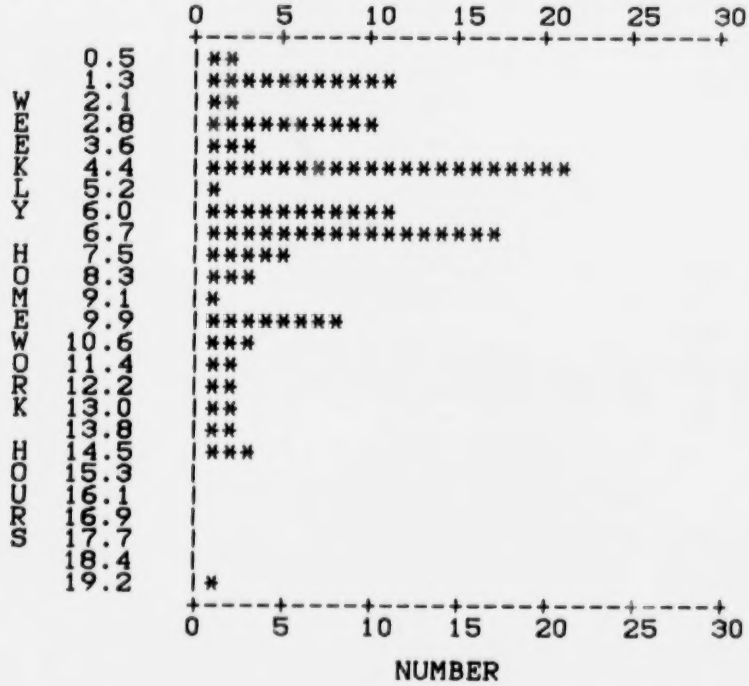


FIGURE 2

Student Survey:
Frequency Distribution of Weekly Homework Hours for All Students



Parent Survey

This survey shows that parents felt the students were spending a weekly average of 7.3 hours (s.d.=3.9) on homework. This is an average of 1.6 hours per week on each major course.

TABLE 6

Parent Survey Questions 1-11:
Percentages of Responses

Question	Response	All (110) 100%
1. Do you ask your son or daughter about his or her daily progress and work in school?	Always	34.6
	Usually	40.9
	Sometimes	21.8
	Never	2.7
2. Do you check to see that your son or daughter does his or her homework?	Always	19.1
	Usually	30.9
	Sometimes	30.0
	Never	20.0
3. Does your son or daughter make up his or her work when absent?	Always	48.5
	Usually	45.8
	Sometimes	5.7
	Never	0.0
4. Is your son or daughter prepared for class each day with books, notebooks, pencil, and pen?	Always	59.5
	Usually	33.0
	Sometimes	5.7
	Never	1.8
5. Does your son or daughter seek extra help when needed?	Always	19.3
	Usually	34.9
	Sometimes	36.7
	Never	9.1
6. Does your son or daughter use his or her time well?	Always	18.1
	Usually	47.3
	Sometimes	29.1
	Never	5.5
7. Do you feel your son or daughter studies enough for tests and quizzes?	Always	14.6
	Usually	41.8
	Sometimes	35.4
	Never	8.2
8. Do you feel that obtaining missed assignments and seeing that make-up work is completed is the student's responsibility?	Yes	98.2
	No	1.8
9. Do you feel your son or daughter could be doing better in his or her schoolwork?	Yes	90.0
	No	10.0
10. Would you like to have your son or daughter improve his or her study skills?	Yes	95.5
	No	4.5
11. If it were offered, would you have your son or daughter sign up for a 6 to 9 week course in study and time management skills?	Yes	81.5
	No	18.5

Note. Percentages may not total 100 because of non-responses.

TABLE 7

Student Survey:
Pearson Correlation Coefficients (r)
of Study Habits and Skills with Grade Point Average

Study Habit or Skill	Related Survey Question Number	r
Paying attention	1	.14
Following directions	2	.30**
Bringing books to class	3	.20*
Bringing notebooks to class	4	.11
Bringing pen or pencil to class	5	.02
Taking notes	6	.02
Doing written assignments	7	.26**
Doing reading assignments	8	.10
Use of notes when studying	9	.30**
Use of books to help with written assignments	10	-.03
Studying for tests and quizzes	11	.26**
Use of the library	12	.07
Asking questions in class	13	.18
Seeking extra help	14	.21*
Doing make-up work	15	.16
Setting aside time for homework	16	.02

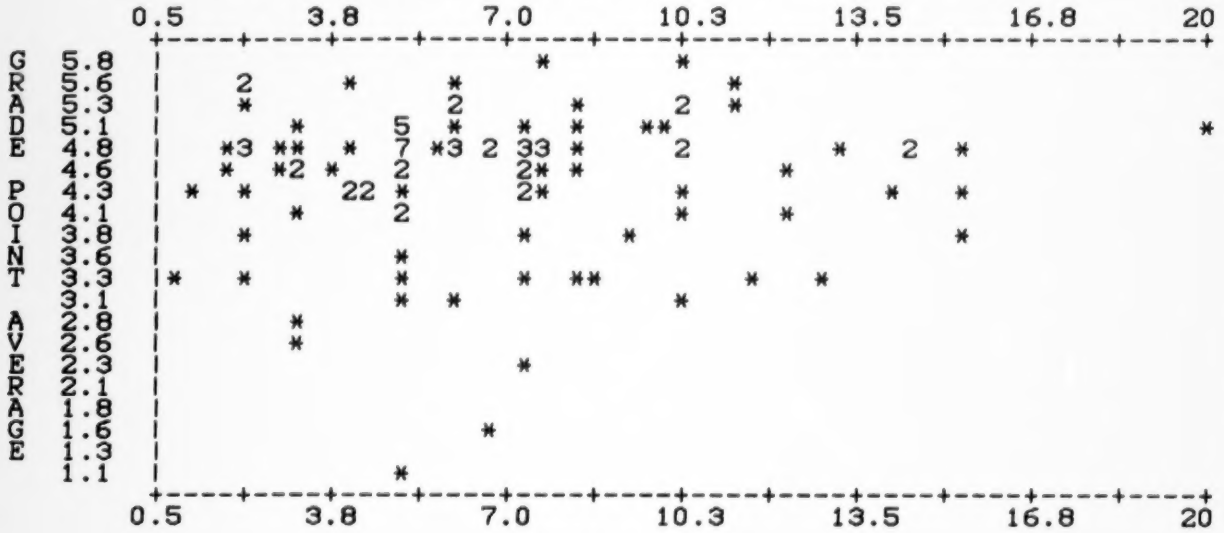
*$p < .05$. **$p < .01$.

The multiple correlation coefficient of student survey questions thirteen and fourteen (Do you ask questions in class when you do not understand something? and Do you seek extra help when needed?) with grade point average is $R = .24$, $p = .05$.

The correlation coefficient of grade point average and weekly homework hours (student survey) is, as indicated by figure 3, very low: $r = .06$, $p = .54$.

FIGURE 3

Student Survey:
Grade Point Average as a Function of Weekly Homework Hours



Note. If more than one case fits the same point, this point is marked by a number indicating the number of cases.

TABLE 8

Pearson Correlation Coefficients (r) of Student and Parent Responses to Similar Questions

Question Topic	Student Survey Question Number	Parent Survey Question Number	r
Class Preparation	3,4,and 5	4	.46**
Study for tests	11	7	.24**
Seek extra help	14	5	.49**
Make-up work	15	3	.27*
Parents' asking about school	17	1	.51**
Using time well	24	6	.30**
Doing better in schoolwork	25	9	.32**
Weekly homework time	--	-	.57**

*$p < .05$. **$p < .01$.

The multiple correlation coefficient of parent survey questions one and two (Do you ask your son or daughter about his or her daily progress and work in school? and Do you check to see that your son or daughter does his or her homework?) with grade point average is $R = .24$, $p < .05$.

TABLE 9

Student Survey:
Reasons Why and Average Percentages of Times Students Are Not Prepared for Class

Reason	Average Percentage
Not having either books, notebook, or pen or pencil	6.5
Not having completed reading assignments	33.4
Not having completed written assignments	26.3
Not having studied enough for tests and quizzes	47.0

DISCUSSION

The large return of parent surveys, the completeness of the student surveys, and teacher comments in support of the idea, all indicate a strong interest in a course for the improvement of study habits and skills.

The students' self-assessments are in close agreement with their teachers' perception of student study habits. They seem to be aware of their weaknesses and want to correct them--97.2 percent feel they can do better work and 81.9 percent want to improve their skills.

The students' parents and guardians have a good understanding of what their sons and daughters are doing in school, and would welcome an opportunity for them to improve their work habits.

When the freshmen, sophomore, and junior groups are compared, there are no significant differences in group grade point averages or weekly hours spent on homework, but there are differences in their study habits. The freshmen group is significantly (t tests, $p < .05$) better at doing reading assignments and using their time well. They also take notes more often, and make better use of the library. The sophomores and juniors use their notes significantly (t tests, $p < .05$) more often when studying. The variance in study habits, and the lack of correlation (see Figure 3) between grade point average and weekly homework hours, indicates that the time put into studying

is not as important as the quality and type of studying. This is supported by a study on homework by Turvey (1986). There is a need for shoring up weak spots in, and periodic reinforcement of, student study habits and skills. The effect of jobs and other after school activities on student priorities should be considered in helping with time management skills.

Communication between parent and student is a significant factor in student performance. Their is a need to remind parents of the importance of their showing interest in homework and what goes on in school.

Communication between teachers and students needs to be improved. Students, overall, seek extra help only 52.9% of the times, and they ask questions in class only 65.7% of the times they feel they need to. The reason seems to be related to teacher-pupil relations--25.5% of the students said they are not comfortable seeing teachers for extra help, and 37.7% are not comfortable asking questions in class. Being comfortable asking questions in class is, certainly, also related to concerns over what peers will think. These issues need to be addressed among teachers themselves, as well as in a course for improving academic achievement.

In a comparison of freshmen to sophomore groups, there is a drop from 94% to 80% in the number of students who feel their schoolwork will be of value to them after graduation. Increasing student awareness of the value of their courses in the

preparation for college and various professions could provide an important motivating factor, and would, therefore, be an appropriate part of a course aimed at boosting student performance. Students should understand the universal importance in learning how to approach a task, make decisions, and solve a problem.

The study shows that the students' average weekly homework time is only 40.8% (1.4 hours per major course) of the 3.5 hours per major course that their teachers felt necessary to do the assignments, and the average parent estimate of weekly homework time is only 1.6 hours per major course; yet the mean grade point average is 4.4 out of a possible 6.0. Whereas the teachers feel 60.6% of their students could do better work, 97.2% of the students and 90% of the parents felt better work could be done. The reasons for these differences, and the lack of correlation of grade point average with study hours, are complex, but it should be considered if not enough is asked of the students. It is possible that academic standards have been gradually, and perhaps unconsciously, lowered, either by accepting lower quality work or reducing the amount of subject material covered. Students' needs, due to increased course loads resulting from greater graduation requirements, must be accommodated by new or modified courses, not by decreasing the demands of existing courses.

It is clear that a course to help students work up to their abilities, and improve academically, is not only needed, but

wanted by students (56.9%), teachers (95.8%), and parents (81.5%). Such a course needs to have both didactic and counseling components. Good habits and skills, together with a positive perception of self and environment, intertwine to reduce frustration, and provide the means and motivation to be successful. Study habits and skills, attitudes, responsibility, motivation, peer-pressure, and communication skills should all be part of the curriculum. The study skills most in need of emphasis are the taking and use of notes, the use of books, how to study for and take tests, and the effective use of time and resources. An integral part of the course should be discussions of the problems and successes of the students in the class, letting them know they are not alone with their problems, and giving them the opportunity to learn from each others' experiences. These experiences should be used as a focus for teaching not only study skills, but also the value and rewards of learning and hard work, and that each student ultimately determines his or her own success.

The development of good study habits does not, of course, begin in high school. Students should take the type of course under discussion long before high school, and a reinforcing course should be offered in the sophomore year. The course should be required of freshmen not having had such a course earlier. A course separate from existing curriculum, meeting for nine weeks (one quarter of a school year), should be appropriate, and fit nicely into study hall time slots.

In addition to the development and implementation of the course, I suggest the following: 1. a longitudinal follow up study to determine if the course for improved student achievement is successful; 2. that teachers discuss ways in which they can reinforce, without detracting from curriculum, good study habits and skills in their disciplines; 3. workshops in communications to help improve teacher-student relations, and to help teachers help students feel more comfortable with their classmates; 4. that schools look at ways to communicate to parents what good study habits are, and how they can help and encourage their sons and daughters do better in school; 5. that teachers, counselors, and administrators examine curricula to determine what changes are necessary as a result of increased graduation requirements; and 6. that even though this discussion is based on a study of level two college preparatory students, its concepts are not limited to that group.

APPENDIX

Response Coding Used in the Calculations

The following values were assigned for the calculations of grade point averages: any A grade = 6.0; any B grade = 5.0; any C grade = 4.0; any D grade = 3; and an F = 0.

The following values were assigned to the responses to questions on the student and parent surveys: Always = 5; Usually = 4; Sometimes = 2; Never = 0; Yes = 1; and No = 0.

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